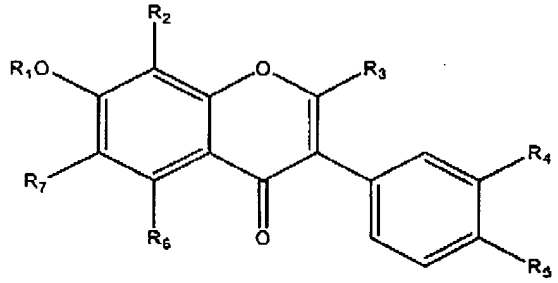
APPENDIX A

CLEAN COPY OF CLAIMS AS AMENDED HEREIN

7. A method of reducing alcohol consumption in a mammal comprising administering a compound of Formula I



Formula I

wherein:

R_1 is selected from the group consisting of hydrogen, carboxy, halo, branched or straight chain (C_1-C_6)haloalkyl, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_3-C_6)cycloalkylcarbonyl, substituted or unsubstituted phenyl, phenyl(C_1-C_6)alkyl, and heterocyclyloxy, heterocyclylcarbonyl, wherein substituents are from one to four and are selected from the group consisting of halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1C_3)alkylaminocarbonyl, and di (C_1-C_3)alkylaminocarbonyl;

R_2 is selected from the group consisting of hydrogen and alkoxy;

R_3 is selected from the group consisting of hydrogen, (C_1-C_6) alkoxycarbonyl, and carboxy;

R_4 is selected from the group consisting of hydrogen and hydroxy;

R_5 is selected from the group consisting of hydrogen, carboxy, hydroxy, amino, halo, branched or straight chain (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)alkadienyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_4-C_6)alkoxycarbonylalkyl, (C_1C_6)hydroxyalkyl, substituted or unsubstituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, heterocyclyloxy, heterocyclylcarbonyl, wherein substituents are from one to four and are selected from the group consisting of halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, and di (C_1-C_3)alkylaminocarbonyl;

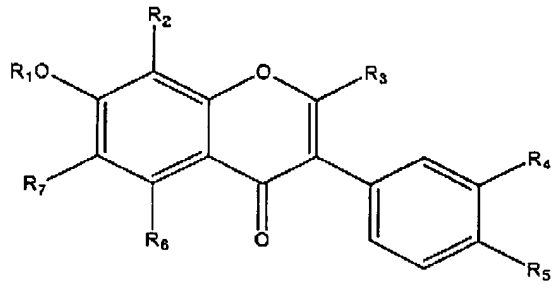
R_6 is selected from the group consisting of hydrogen and hydroxy; and

R_7 is selected from the group consisting of hydrogen and halogen,

with the proviso that R_5 cannot be hydroxy when R_1, R_2, R_3, R_4, R_6, and R_7 are all hydrogen

in an amount effective to increase a concentration of 5-hydroxyindoleacetaldehyde formed during catabolism of serotonin or dopamine.

8. A method of modulating alcohol consumption in a mammal comprising administering a compound of Formula I



Formula I

wherein:

R_1 is selected from the group consisting of hydrogen, carboxy, halo, branched or straight chain $(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$haloalkyl, $(C_2$-$C_6)$alkenyl, $(C_3$-$C_6)$alkadienyl, $(C_1$-$C_6)$alkoxy, $(C_3$-$C_6)$cycloalkoxy, $(C_1$-$C_6)$haloalkoxy, $(C_3$-$C_6)$cyclohaloalkoxy, $(C_2$-$C_6)$alkynyloxy, $(C_1$-$C_6)$alkoxy$(C_1$-$C_6)$alkyl, $(C_3$-$C_6)$cycloalkoxyalkyl, $(C_1$-$C_6)$alkoxy$(C_3$-$C_6)$cycloalkyl, $(C_1$-$C_6)$alkylcarbonyl, $(C_3$-$C_6)$cycloalkylcarbonyl, $(C_1$-$C_6)$alkoxycarbonyl, $(C_4$-$C_6)$alkoxycarbonylalkyl, $(C_1$-$C_6)$hydroxyalkyl, $(C_5$-$C_{10})$carboxyalkyl, substituted or unsubstituted phenyl, phenyl$(C_1$-$C_6)$alkyl, heterocyclyl, heterocyclyloxy, heterocyclylcarbonyl, wherein substituents are from one to four and are selected from the group consisting of halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, $(C_1$-$C_3)$alkyl, $(C_1$-$C_3)$haloalkyl, $(C_1$-$C_3)$alkoxy, $(C_1$-$C_3)$haloalkoxy, $(C_1$-$C_3)$alkylamino, di$(C_1$-$C_3)$alkylamino, $(C_1$-$C_2)$alkoxy$(C_1$-$C_2)$alkyl, $(C_1$-$C_2)$alkylamino$(C_1$-$C_2)$alkyl, di$(C_1$-$C_2)$alkylamino$(C_1$-$C_2)$alkyl, $(C_1$-$C_3)$alkylcarbonyl, $(C_1$-$C_3)$alkoxycarbonyl, $(C_1$-$C_3)$alkylaminocarbonyl, and di $(C_1$-$C_3)$alkylaminocarbonyl;

R_2 is selected from the group consisting of hydrogen and alkoxy;

R_3 is selected from the group consisting of hydrogen, $(C_1$-$C_6)$ alkoxycarbonyl, and carboxy;

R_4 is selected from the group consisting of hydrogen and hydroxy;

R_5 is selected from the group consisting of hydrogen, carboxy, halo, amino, branched or straight chain (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)alkadienyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_4-C_6)alkoxycarbonylalkyl, (C_1-C_6)hydroxyalkyl, substituted or unsubstituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, heterocyclyloxy, heterocyclylcarbonyl, wherein substituents are from one to four and are selected from the group consisting of halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, and di (C_1-C_3)alkylaminocarbonyl;

R_6 is selected from the group consisting of hydrogen and hydroxy; and

R_7 is selected from the group consisting of hydrogen, halogen, and C_1-C_6 alkoxy,

in an amount effective to increase a concentration of 5-hydroxyindoleacetaldehyde or 3,4-dihydroxyphenylacetaldehyde formed during catabolism of serotonin or dopamine.

9. The method of claim 7, wherein the mammal is a human.

12. The method of claim 7, wherein the compound does not inhibit monoamine oxidase.

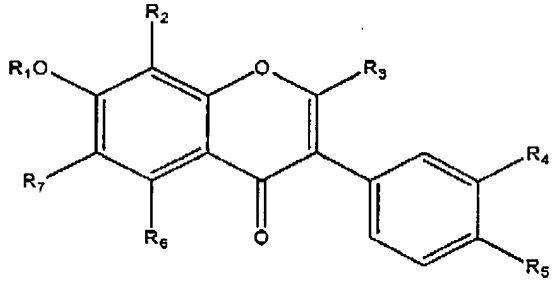
13. The method of claim 7, wherein R_5 is hydroxyl or amino.

14. The method of claim 8, wherein R_1 is a straight chain alkyl.

15. The method of claim 8, wherein R_1 is (C_1C_6)hydroxyalkyl or (C_5C_{10})carboxyalkyl.

16. The method of claim 7, wherein the compound is administered intraperitoneally, intramuscularly or orally.

27. A compound for inhibiting ALDH-2 comprising Formula I



Formula I

wherein:

R_1 is selected from the group consisting of hydrogen, carboxy, halo, amino, branched or straight chain (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2--C_6)alkenyl, (C_3-C_6)alkadienyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_4-C_6)alkoxycarbonylalkyl, (C_1-C_6)hydroxyalkyl, (C_5-C_{10})carboxyalkyl, substituted or unsubstituted phenyl, phenyl(C_1-C_6)alkyl, heterocyc1yl, heterocyclyloxy, heterocyclylcarbonyl, wherein substituents are from one to four and are selected from the group consisting of halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, and di (C_1-C_3)alkylaminocarbonyl;

R_2 is selected from the group consisting of hydrogen and alkoxy;

R_3 is hydrogen;

R_4 is selected from the group consisting of hydrogen and hydroxy;

R_5 is selected from the group consisting of hydrogen, carboxy, halo, amino, branched or straight chain (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)alkadienyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_4-C_6)alkoxycarbonylalkyl, (C_1-C_6)hydroxyalkyl, substituted or unsubstituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, heterocyclyloxy, heterocyclylcarbonyl, wherein substituents are from one to four and are selected from the group consisting of halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, and di (C_1-C_3)alkylaminocarbonyl.

R_6 is selected from the group consisting of hydrogen and hydroxy; and

R_7 is selected from the group consisting of hydrogen, halogen, and C_1-C_6 alkoxy.

28. The compound of claim 26, wherein R_5 is hydroxyl or amino.

29. The compound of claim 27, wherein R_1 is a straight chain alkyl.

30. The compound of claim 27, wherein R_1 is (C_1-C_6)hydroxyalkyl or (C_5-C_{10})carboxyalkyl.